AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Canceled)

2. (Canceled)

3. (Currently Amended) An apparatus for measuring ~~to measure~~ local streaming potential of a membrane for monitoring the progress of membrane fouling in the course of filtration of a hollow-fiber membrane, wherein said apparatus comprises

a feed tank to reserve feed solution in a state of colloidal suspension;

a delivery pump to deliver said feed solution;

a membrane module with a plurality of ~~several~~ hollow-fibers through which said feed solution is introduced and released;

internal and external electrodes installed respectively on an upper and a lower regions of a membrane pore of a hollow-fiber at inlet and outlet of ~~a~~ the membrane module and are used in measuring streaming potential;

a means to measure physical properties of said feed solution being introduced into a membrane module;

a pressure meter that measures the pressure difference both at the inlet and outlet of a membrane module;

a ~~minute~~ flow-control valve used to adjust pressure difference present across the membrane pores;

a means to display and record data ~~being~~ obtained from the above-mentioned measuring devices; and

a means to calculate the value of zeta potential (ζ) of a hollow-fiber membrane.

4. (Currently Amended) The apparatus ~~to measure local streaming potential for monitoring the progress of membrane fouling in the course of filtration of a hollow-fiber membrane~~ according to claim 3, wherein said hollow-fiber membrane~~, the place where said filtration is conducted,~~ is bundled with an epoxy resin potting to separate feed solution and permeate.

5. (Original) The apparatus ~~to measure local streaming potential for monitoring the progress of membrane fouling in the course of filtration of a hollow-fiber membrane~~ according to claim 3, wherein the electrodes installed inside said hollow-fiber membrane are wire-type ~~Ag/AgC1~~ Ag/AgCl electrodes of 0.25 mm in diameter that cover about 6% of the total internal cross-sectional area while the electrodes installed outside said hollow-fiber membrane are spiral electrodes of the same material.

6. (Currently Amended) The apparatus ~~to measure local streaming potential for monitoring the progress of membrane fouling in the course of filtration of a hollow-fiber membrane~~ according to claim 3, wherein said minute flow-control valve can perform a fine adjustment up to 0.3% of the maximum flow rate.

7. (Currently Amended) The apparatus ~~to measure local streaming potential for monitoring the progress of membrane fouling in the course of filtration of a hollow-fiber membrane~~ according to claim 3, wherein the data obtained from the devices

mentioned in ~~the~~ claim 3 are displayed and recorded using a multi-channel digital multi-meter and a computer, and the value of zeta potential **(ζ)** of ~~a~~ the hollow-fiber membrane is calculated by using the equation (I),

$$\frac{\Delta V}{\Delta P} = \frac{\varepsilon \zeta}{\lambda \eta} \qquad \textbf{(I)}$$

wherein ΔV ~~represents~~is streaming potential difference; ~~obtained when a given pressure difference is~~ ΔP is pressure difference; ε ~~represents~~ is the dielectric constant; λ ~~represents~~is the conductivity of a solution; and η ~~represents~~ is the viscosity of a solution.